# ON SCENE

## THE NATIONAL MARITIME SAR REVIEW

**DEPARTMENT OF TRANSPORTATION**

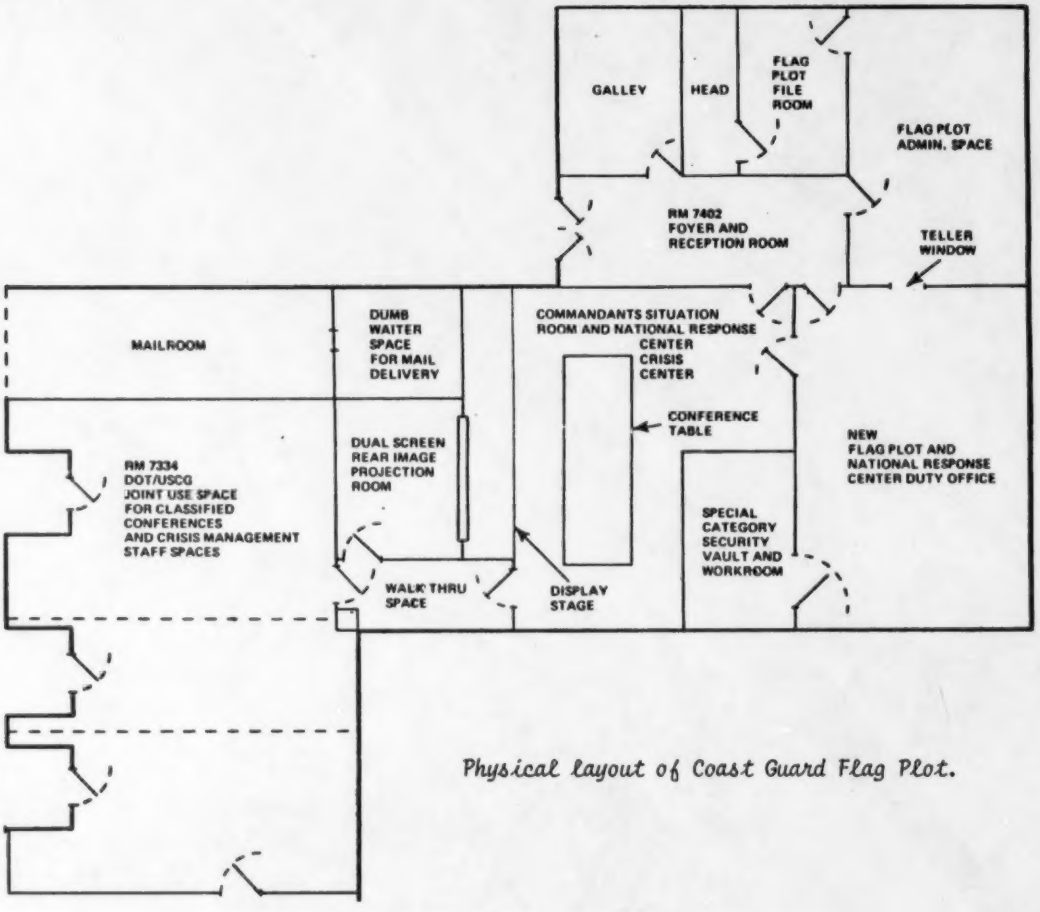
**U. S. COAST GUARD**

ISSUE NO. 5-75

# ON SCENE
## THE NATIONAL MARITIME SAR REVIEW

## COAST GUARD FLAG PLOT--WHAT IS IT?

**By LCDR W.A. ANDERSON and QMCS S.W. DAY**


GALLEY
HEAD
FLAG PLOT FILE ROOM
FLAG PLOT ADMIN. SPACE
RM 7402 FOYER AND RECEPTION ROOM
TELLER WINDOW
MAILROOM
DUMB WAITER SPACE FOR MAIL DELIVERY
COMMANDANTS SITUATION ROOM AND NATIONAL RESPONSE CENTER CRISIS CENTER
CONFERENCE TABLE
NEW FLAG PLOT AND NATIONAL RESPONSE CENTER DUTY OFFICE
RM 7334 DOT/USCG JOINT USE SPACE FOR CLASSIFIED CONFERENCES AND CRISIS MANAGEMENT STAFF SPACES
DUAL SCREEN REAR IMAGE PROJECTION ROOM
SPECIAL CATEGORY SECURITY VAULT AND WORKROOM
WALK THRU SPACE
DISPLAY STAGE

*Physical layout of Coast Guard Flag Plot.*

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ON SCENE is a SAR publication published by the Commandant, U. S. Coast Guard as a source of information concerning current and proposed procedures as well as new developments in SAR. Articles contained herein are non-record and non-directive.

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The fruit of four years of work, planning and frustration were realized in February here in Coast Guard Headquarters when Flag Plot and the National Response Center moved into new facilities in DOT Headquarters' Building. Captain Marshall K. Phillips, with the assistance of his Flag Plot Staff, commenced the planning and design of the facility upon his assignment as Flag Plot Supervisor on 22 May 1971. With money appropriated in the 1972 and 1973 AC&I budget, reconfiguration of the spaces assigned to Flag Plot and the procurement of special furniture and audio-visual equipment proceeded nearly on schedule. The only serious hitch came in the summer of 1974 when the contractor for the Flag Plot/NRC desk console, the focal point of the facility, failed to meet the contract specifications. The Coast Guard Yard was asked to assist and the carpenter shop responded with much enthusiasm. A beautifully constructed console was installed in Flag Plot in February 1975. One more step will complete the basic physical improvements in Flag Plot/NRC. The telephone company is in the process of designing and building a new, more versatile telephone switchboard to replace the switchboard presently in use. Four identical panels will provide four independent operating positions at the new console. These panels are expected to be complete in Nov. 1975.

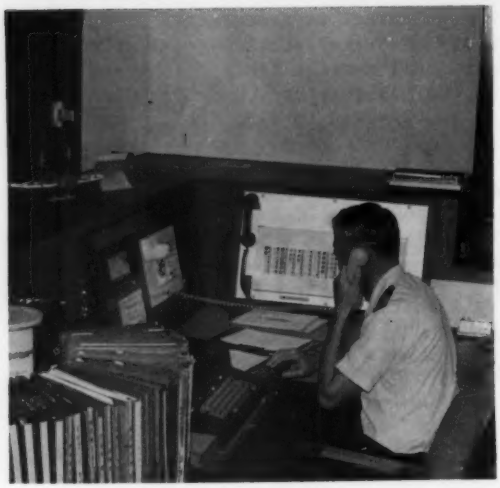
The facing drawing shows the general floor plan of Flag Plot spaces. The Commandant's Situation Room is the scene of the Commandant's daily briefing by Office Chiefs. Flag Plot and NRC duty officers prepare briefing items on current significant Coast Guard operations for presentation at these daily sessions. The room is also continually available for emergency sessions of the National Response Team and is the scene of the quarterly meeting of the National Response Team. The NRT consists of high level representatives of ten Federal agencies. This group provides Federal contingency planning and operational assistance and coordination whenever a pollution incident requires high level Federal attention.

Behind the console in the Flag Plot duty office three watch officers keep their finger on the pulse of the Coast Guard and pollution incidents around the world. The Flag Plot duty officer (O-4 billet) and his assistant (QMC billet) act as the direct representative of the Secretary of Transportation and the Commandant. All message traffic into and out of the Headquarter's Communication Center is reviewed in Flag Plot. Anytime a staff component is not available to take necessary action on a message, that action is initiated by the duty officer. Also, telephone calls to Flag Plot often start the ball rolling when a job needs doing now. Hence, Headquarters is capable of, and does, respond to the urgent needs of field units on a 24 hour a day 365 day a year basis.

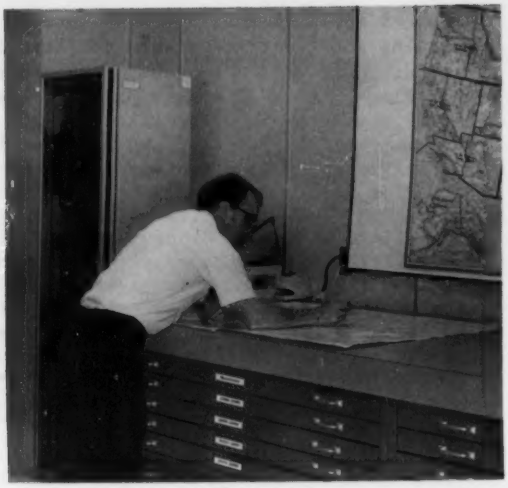
With our increased contact with foreign fishing vessels in a law enforcement context and our current operations designed to interdict the drug traffic into the southern areas of the United States, Flag Plot provides a critical link between Coast Guard units and other Federal agencies and departments under operational conditions. The Flag Plot telephone system is designed to provide the most rapid communication with such offices as the White House Situation Room, State Department Operations Center and National Military Command Center (NMCC). From a military readiness standpoint Flag Plot keys Coast Guard reaction in the event of a national emergency and maintains close liaison with the National Command authorities through the NMCC.

The third watchstander behind the console, the National Response Center duty officer (O-1/O-2 billet) acts as a link between the public (industry) and the Coast Guard and Environmental Protection Agency. A toll free number is provided so that the public can easily report pollution or hazardous material incidents. The NRC duty officer then relays the incident to the organization having jurisdiction; ie, the Coast Guard unit or EPA region. NRC has direct communications capability with other Federal departments and agencies just as does Flag Plot, and provides a similar service to field units when contact with those offices becomes necessary. For example, the NRC played a key role in the recent deployments of our Strike Teams overseas.

That's a thumbnail sketch of Flag Plot/NRC and along with the accompanying photos should replace the blank stare with a knowing glimmer when you tell your friends you are going to be a Flag Plot/NRC duty officer.

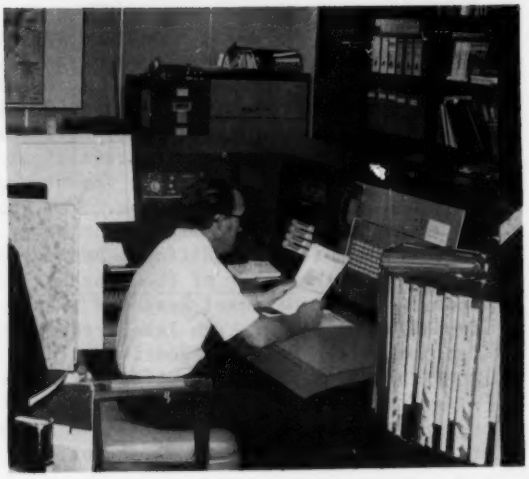


LCDR ANDERSON uses the secure telephone to discuss an incident.

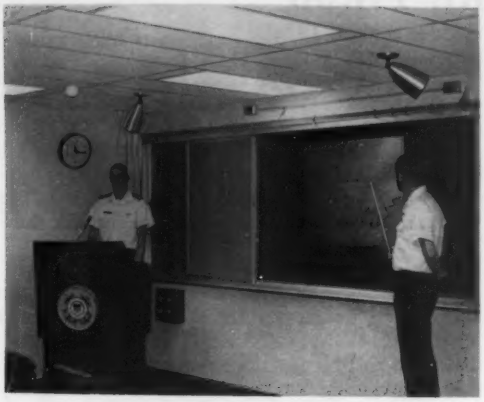


QMC ABRAHAM uses one of two convenient tables to plot SAR activity.

The world chart in the Commandant's Situation Room keeps the Commandant and staff abreast of Major Cutter movement and incidents of interest around the world.



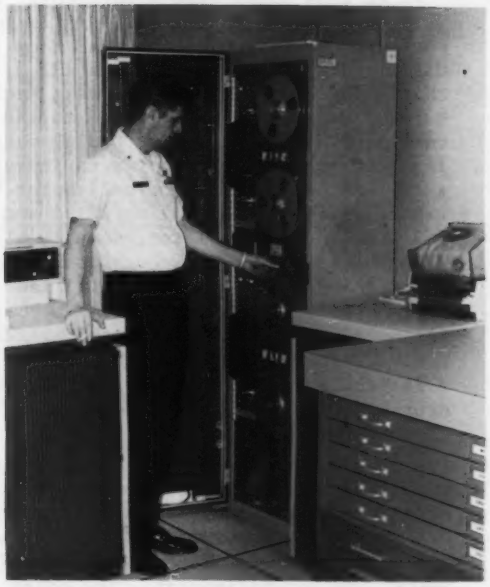
Cross training between Flag Plot and NRC is standard. Here QMC ABRAHAM sits in briefly for the NRC duty officer.



A Rear Projection screen in the Commandant's Situation Room provides versatile visual aids capacity.

The Flag Plot assistant duty officer's console.

A Pneumatic tube message handling system carries an average of 1000 messages a day between Flag Plot and the Headquarters Communications Center.



QMCS DAV monitors the Flag Plot Master Recorder. This dual deck system monitors 19 telephone lines and a time signal.

# ELT GAINING RESPECT IN THE FIELD

The following letter from Commanding Officer, Air Station, KODIAK is quoted verbatim:

"1. I am aware that there has been much discussion regarding ELT "false alarms" and a tendency to conclude that this relatively new requirement may be causing more trouble than it is worth. Although we have had our share of false alarms, our experience is that the positive aspects of the ELT have outweighed the inconvenience.

2. During the past 12 months eleven ELT cases have been actively processed by the Kodiak SAR Coordinator. Seven of these proved to be false alarms while four were actual cases. I am convinced each of these four cases, for which brief narratives are enclosed, would most probably have resulted in a major search effort and, quite possibly, loss of life had the distressed unit not been equipped with an ELT.

13 July 1974

At 1334 local time a commercial airliner enroute to Tokyo from Seattle reported to Anchorage center that they had monitored an ELT signal on 121.5 MHZ in the vicinity of the Alaska Peninsula. This report was relayed to the rescue coordination center at Kodiak which launched an HH-3F helicopter to investigate. At 1452 the rescue helicopter began receiving the signal on 121.5 and 243.0 MHZ. An hour later, some 80 miles from the area in which the signal was first heard by the HH-3F, a civilian helicopter was located on a small rocky island off Cape Kekurnoi on the Alaska Peninsula. The distressed helicopter, a Fairchild Hiller FH-1100, had earlier dropped off three geologists at Wide Bay then proceeded with the one remaining passenger, also a geogolist, for a survey of the rocky island some twenty miles distant. Upon attempting to restart the helicopter at 1230 the pilot discovered his battery was dead and had no way of restarting the helicopter. The pilot then actuated his ELT and sat back to await his rescue some 3 hours and 23 minutes later.

13 September 1974

At 1540 Anchorage center reported to Kodiak RCC that three transiting aircraft had reported receiving an ELT signal in the vicinity of Port Moller on the Alaskan Peninsula. A C-130 aircraft was dispatched from Air Station Kodiak and located a disabled Super Cub midway between Port Moller and Port Heiden. The C-130 dropped a portable radio and determined the aircraft had damaged a wheel on landing and was unable to take off. The three people involved all had sufficient survival equipment and emergency rations for several days. RCC Kodiak made the necessary telephone calls and the next morning spare parts and tools were delivered by a local flying service. Repairs were completed and the aircraft was flown to Port Heiden the same day.

24 March 1975

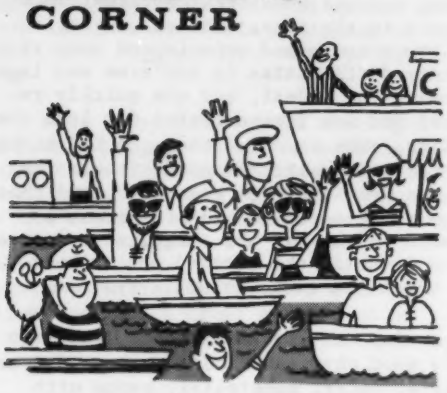
At 1615 a Coast Guard C-130 aircraft returning to Kodiak from a fisheries enforcement flight in the Bering Sea monitored an ELT signal in the vicinity of King Salmon, Alaska. Homing in on the signal, the C-130 located a small aircraft apparently disabled near Becharof Lake on the Alaska Peninsula. The aircraft dropped blankets and other survival equipment before departing the area due to a low fuel state. At 1942 a Coast Guard HH-3F helicopter, again using the ELT signal to locate the disabled aircraft transported the two stranded persons to King Salmon. The trouble again- a dead battery. NOTE: Temperatures in the area plunged to -25 deg. F. shortly after the rescue.

27 April 1975

At 2321 Anchorage center advised RCC that three separate transiting aircraft had reported receiving an ELT signal in the vicinity of Middleton Island in the Gulf of Alaska. A C-130 aircraft from Kodiak was dispatched at 2342. Using the ELT signal and a high intensity ASS-2 lighting system, the C-130 located and identified a crashed twin Beechcraft E-18 at the water's edge on Montague Island. A

**Contd...on page 11**

# KUDOS CORNER



Here are some pats on the back from satisfied customers, excerpted from letters to the Commandant:

".... my thanks to the Coast Guard and in particular to Frank Tatu and his boat crew (43221) from the Castle Hill C.G.Station, Newport for aiding us when my 30 foot power boat broke down off Newport on June 29th. .....In spite of rough seas the towing and subsequent docking was handled very efficiently without damage to my boat and with consideration for our comfort and safety."../S/ John F. W. Anderson.

"I wish to commend for fine service ....personnel of the Ocean City, Maryland Coast Guard Base. On Saturday evening Memorial Day weekend, my boat was swamped and washed ashore on Asetic (sic) Island. ...These men were of outstanding help in rescuing myself and other friends".... /S/ David B. Stull.

"It has come to my attention that officers of the U. S. Coast Guard, operating out of the Holland, Michigan Station, helped a constituent and friend of mine, Mr. Jon Armstrong of Elkhart, Indiana when his boat developed mechanical difficulties in Lake Michigan recently. I am writing .... to congratulate you on the fine and courteous service your men rendered to Mr. Armstrong." ... /S/ John Brademas, Member of Congress.

"On 10 July 1975, while cruising on Chesapeake Bay .... my cabin cruiser experienced a loud explosion .... these facts where radioed to the Coast Guard Station, Annapolis, Md. ..... Shortly thereafter one of your workboats arrived on scene and took us in tow. Since all those aboard my cabin cruiser were retired military it was noted that your vessel was smartly turned out, adeptly handled and crewed by three neatly uniformed men .... Their names were: BM3 Francell Abbott, MK3 Norman Ragland, and SN Bill Rashcal ...." /S/ James B. Sweeney, Lt. Col. USAF (Ret).

## DISTRESS INFORMATION RECEIVED VIA CITIZENS BAND

Recently, in post mortem discussions about a poorly handled SAR case, a feeling was surfaced that distress information received as a result of Citizens Band radio reports was to be given inferior treatment. This feeling was somehow related to the fact that the Coast Guard does not maintain a radio guard on Citizens Band frequencies. Fortunately the case proved to be a false alarm and the consequences of the mishandling were not as serious as they could have been.

The decision of the Coast Guard not to maintain a guard on CB frequencies was made after careful study, and is based on practical communications feasibility, not on the nature of the information so transmitted. Emergency information received by <u>any</u> means or from <u>any</u> source requires professional evaluation and SAR response.

In some areas boaters have voluntarily established informal CB Marine Safety Systems. The Coast Guard does not encourage the formation of these CB marine nets, but where they exist, information can be extracted from them to aid the Coast Guard's safety mission. Amplifying information on the Coast Guard's policy with respect to CB radio is contained in CG-233 and Commandant's Instruction 2302.6 series. All SAR Coordinators should be familiar with the material in these directives.

By CWO W. K. Collier

## WOMAN SURVIVES ORDEAL IN WATER

While transiting from Westport to Toleland, Washington on 13 April 1974, a newly purchased, unnamed fishing boat became disabled and subsequently sank. At the time there were four people onboard; a fifth would have been along had he not refused to make the trip as he felt there was insufficient fuel aboard. That decision probably saved his life as the engine of the ill fated boat stopped while crossing the Willapa Bay Bar and could not be restarted. It was later concluded that the most probable cause of the engine failure was a low fuel level resulting in loss of fuel supply to the engine.

The engine failure occured at about 2100 hours. The four occupants of the boat (3 males, ages 21,27 and 31, and 1 female, age 20) were able to stay with the boat for approximately another two hours. During that time the boat began touching bottom and taking on water over the stern. When the water started coming in, all four donned life jackets.

The boat eventually swamped at about 2300 hours. An attempt was made to launch the boat's liferaft, but it was washed away and was lost. The boat remained afloat for about another 45 minutes before it finally sank. Around midnight the four became separated.

At the time of the incident the winds were from the west-northwest 5-15 knots, air temperature was 31°F and the water temperature was 50°F. The life expectancy of a person in 50°F water without an exposure suit on is considered marginal (50% expectancy of death) after 45 minutes and lethal (99% expectancy of death) after 3 1/2 hours.

The following morning at about 0930 hours (10 1/2 hours after the boat swamped) a lone survivor, the 20 year old female, was found clinging to a crabpot buoy and was rescued by a fishing vessel working crabpots in the area. She was suffering from hypothermia and experienced some circulatory difficulties in her arms and legs following the ordeal, but she quickly recovered and was incapacitated for less than 24 hours. She reported that she had kicked and paddled to maintain good circulation when her arms and legs grew cold, and that when morning came she had picked out a landmark on the far off shoreline and swam toward it until she reached the crabpot buoy which she clung to until rescued.

During her ordeal, the survivor, who was in good physical condition, was dressed in levis, shirt, sweatshirt, parka with hood, boots, watchcap and was wearing a lifejacket.

Editors Notes:

*1. The life expectancy graphs contained in the National Search and Rescue Manual, CG-308, are based on case histories, field test, laboratory experiments, and analysis of all known data. They are intended to be used as helpful guidelines only since some individuals will exceed the life expectancy times as this incident clearly illustrates.*

*2. Recent research in the field of hypothermia has revealed that, in cold water, exercise and swimming accelerate hypothermia and therefore should be avoided.*

## ARE YOUR SAR BOATS PROPERLY EQUIPPED?

We've recently reviewed cases where our SAR boats were dispatched:

a. Without a floatable pump to aid a sinking vessel.
b. Without a line throwing gun to assist a boat drifting into shallow water.

Would they have made a difference ? Certainly not sitting at the station. Items that have been justified enough to get on a unit allowance list are of little use if not kept both available and in good working order.

Are your unit instructions and boat check off lists adequate to present similar slip ups?

# LIFE RAFT TRAINING DISPLAY FOR MARINERS

In an effort to improve the potential for training mariners, the Coast Guard Marine Safety Office, San Diego has developed and made available a display of an inflatable raft and its survival equipment.

Most inspected vessels and a great many uninspected vessels have inflatable rafts as part of their life saving equipment. They are self contained, launched by the crew or, in the event of sinking, float free and inflate. The rafts are delivered for shipboard use in a weathertight sealed container which does not allow for ship's crews to examine or otherwise become familiar with their use and features.

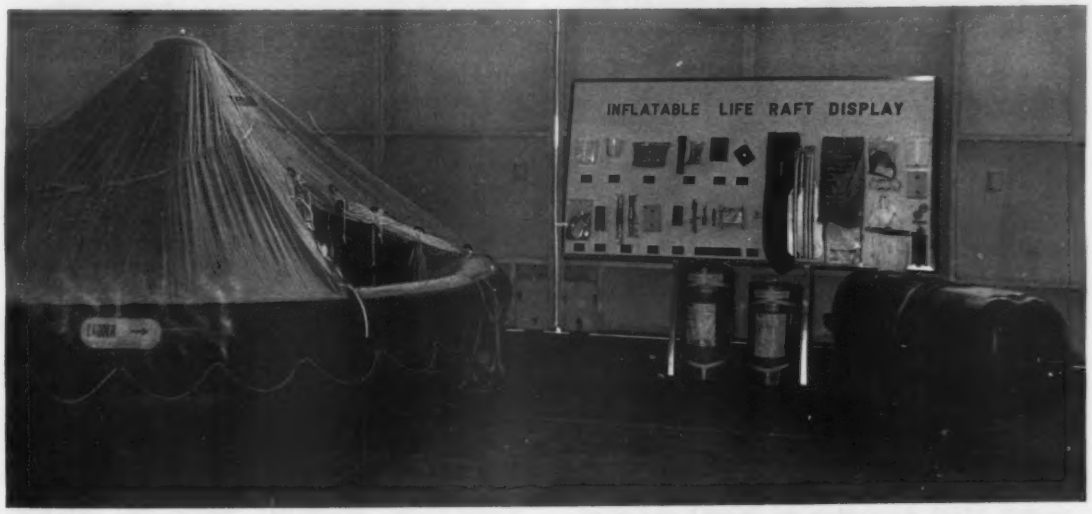
The port of San Diego is the home of a large fleet of many different types of vessels which use inflatable rafts. The display featuring an inflated 25-person raft, a survival equipment display board, and the shipboard cradle with container and release equipment, provides a much needed "hands on" display which allows members of the maritime community to "get the feel" of the raft and its equipment under the direction of Coast Guard Marine Safety personnel.

An interesting side light in setting up the display is that, of the over 150 mariners who have been instructed to date, most have never seen an inflatable raft out of the container. This includes masters of merchant vessels, career Navy personnel, and long time tuna fishermen and yachtsmen. Hopefully, if any of these people have a sudden need to see one in the future, they will know how to use it. Organizations having an opportunity to train mariners are encouraged to develop similar displays. Organizations whose members want to see instructional films about inflatable life rafts approved by the Coast Guard are advised to contact the following manufacturers:

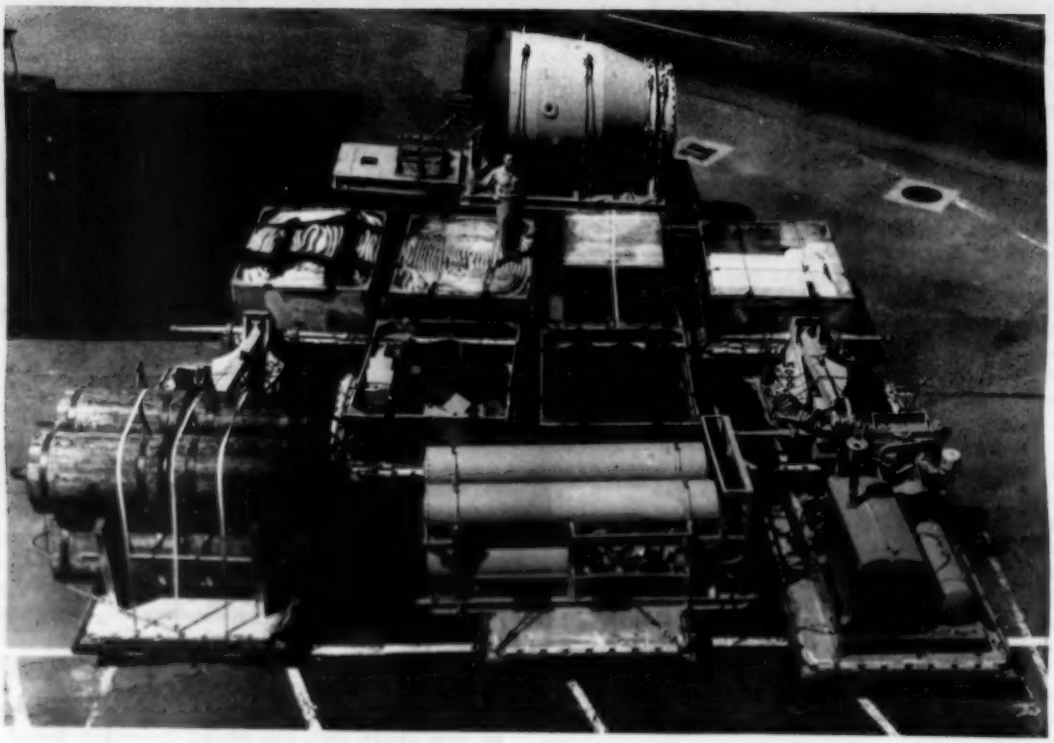
C. J. Hendry Company
139 Townsend Street
San Francisco, California 94107

Switlik Parachute Company, Inc.
1325 East State Street
Trenton, New Jersey 08607

Another way in which mariners may become acquainted with life rafts is to visit raft servicing facilities. At these facilities rafts are inflated and the survival equipment is available. Periodically each ship has its raft serviced; this should provide a ready opportunity for crewmembers to see their own equipment in an inflated condition. Addresses of servicing facilities may be found in the Coast Guard publication Equipment Lists (CG-190).



# EXERCISE BOTTOM



*Submarine rescue fly-away kit.*

Last February, in an operation labelled "Exercise Bottom", the Coast Guard Cutter BUTTONWOOD proved herself capable of performing as a submarine rescue platform. The operation was conducted at the request of the U. S. Naval Training Center, Pacific. The U. S. Navy maintains a "submarine personnel rescue fly-away kit" consisting of palletized equipment which can be flown where needed. The fly-away kit contains rescue vessel mooring gear, and a rescue chamber, together with auxiliary support equipment such as hoses, an air bank, and an air compressor. The kit is designed for rapid delivery by air and truck to a conveniently located rescue vessel in the event of a submarine disaster. The primary purpose of "Exercise Bottom" was to evaluate the capability of a Coast Guard buoy tender to employ the fly-away kit.

Chapter 5 of the U. S. Navy Addendum to NWP 37(A) describes in detail the fly-away kit and methods of laying the moor. Coast Guard buoy tenders (seagoing) are on the distribution list for this publication. Basically the rescue vessel lays a four-point moor which permits her to position herself directly over the crippled submarine. From this position she lowers the rescue chamber directly to the submarine. The boom on a Coast Guard buoy tender is well suited to this task.

The BUTTONWOOD completed loading the rescue kit and got underway on 4 February, 1975. A Navy Technical Director and Navy divers were on board. The following morning she arrived on station.

The divers located the sunken submarine Bluegill, an old wreck, and buoyed off her forward and after escape hatches. After a practice run, the BUTTONWOOD laid her four-point moor. Positioning herself directly over the target, she lowered the rescue bell. The bell was "sealed" to the Bluegill as for actual rescue, but the submarine's escape hatch was not opened for

the purposes of the drill. The seal was broken and the rescue bell retrieved. The BUTTONWOOD remained in the moor overnight and returned to Pearl Harbor the following day, 6 March, 1975.

The exercise was considered a success by all concerned. The conclusion is that a 180 foot A, B, or C class Coast Guard buoy tender has the capability of loading, rigging, and employing the submarine personnel rescue fly-away kit subject to certain limitations. For example, weight of the kit (approximately 40 tons) is a problem. All aids to navigation spares and non-essential material from both holds had to be removed from the BUTTONWOOD. Following this it was necessary to pump off fresh water to achieve maximum draft. The BUTTONWOOD experienced some difficulty in handling the 7 1/2 inch mooring lines, with her deck machinery in the prevailing 30 knot winds. Her 25' motor cargo boats also encountered difficulty in handling the scope of mooring line necessary to the four-point moor. The BUTTONWOOD recommends a two-unit deployment to meet this problem. A tug could accompany the tender and handle the mooring gear leaving the tender free to handle the rescue bell.

No formal arrangement for use of buoy tenders for submarine rescue exists as of this time. However, this exercise proved that tenders can do the job. It is entirely possible that a tender will be called upon at some time to perform a submarine rescue mission. "Exercise Bottom" has shown that it can be done.

*Rescue Chamber being lowered over the port side with carpenter stopper shackled to padeye on main hook.*

*Well deck with rescue chamber rigged for transit.*

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**Contd...from page 6**

Coast Guard HH-3F helicopter was dispatched from Kodiak and rescued all three survivors in good condition at 0558. The pilot of the Beechcraft reported he had made an uneventful landing on the beach earlier in the day. However, on takeoff the right engine failed and the left wing broke out in flames."

Thanks, Captain Nelson, for your support of the ELT program. Much improvement in the false alarm rate is still needed, but the ELT has the potential for contributing significantly to the success of our SAR efforts.